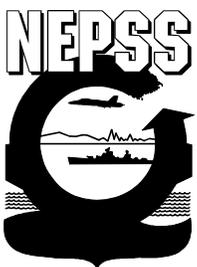




Marine Environmental Update



EPA Releases Draft Generic Assessment Endpoints For Ecological Risk Assessments For Review

On December 4, 2002, the Environmental Protection Agency released the draft *Generic Assessment Endpoints for Ecological Risk Assessments* prepared by the EPA Risk Assessment Forum (RAF) for public comment. The document is intended to assist the EPA during the process of ecological risk assessment in selecting assessment endpoints, which are valued ecological entities and attributes to be protected.

The purpose of the RAF document is to assist EPA risk assessors by providing a set of generic ecological assessment endpoints that can be considered and adapted for use in specific ecological risk assessments, building on existing EPA guidance and experience. The document is not prescriptive, but is intended to be a useful starting point that is flexible enough to be applied to many different types of ecological risk assessments.

The draft generic ecological assessment endpoints are:

- **Organisms (in an assessment population or community)**
 - Kills (mass mortality, conspicuous mortality)
 - Gross anomalies
 - Survival, fecundity, growth (particularly to threatened and endangered species, marine mammals, bald and golden eagles, and migratory birds)
 - Avoidance

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- **Assessment population**
 - Extirpation
 - Abundance
 - Production
- **Assessment community or assemblage**
 - Species richness
 - Abundance
- **Plant assemblage**
 - Production
- **Wetlands**
 - Area
 - Function
- **Coral reefs**
 - Area
 - Species richness
- **Critical Habitat for threatened and endangered species**
 - Area
 - Quality
- **Endangered/Rare ecosystem types**
 - Area (direct destruction or alteration)
- **Aquatic ecosystems**
 - Physical structure
- **Special places**
 - Ecological and legally-protected properties

The draft document is available (794 KB Adobe™ Acrobat™ file) via the Internet on the EPA Risk Assessment Forum home page at <http://www.epa.gov/ncea/raf> under the “What’s New” and “External Review Drafts” menus. The document is undergoing peer review concurrent with the public comment period. The 60-day public comment period began December 4, 2002, and ends on February 3, 2003.

Comments must be provided by February 3, 2003. Comments may be submitted electronically, by mail, or in person. Electronic comments are preferred and may be sent by e-mail to: risk.forum@epa.gov. Comments may be mailed to the Technical Information Staff (8623D), NCEA-W, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, or delivered to the Technical Information Staff at 808 17th Street, NW., 5th Floor, Washington, DC 20006; telephone: (202) 564-3261; facsimile: (202) 565-0050.

In the case of paper comments, please submit one unbound original with pages numbered consecutively, and three copies of the comments. For attachments, provide an index, number pages consecutively with the comments, and submit an unbound original and three copies.





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All comments received will be placed in a public record. Commenters should not submit personal information, Confidential Business Information, or information protected by copyright. Due to limited resources, acknowledgments will not be sent.

For further information, contact Scott Schwenk, U.S. EPA, Office of Research and Development, National Center for Environmental Assessment (8601D), 1200 Pennsylvania Ave. NW., Washington, DC 20460; telephone: (202) 564-6667; facsimile: (202) 565-0062; e-mail: schwenk.scott@epa.gov.

Federal Register, Volume 67, Number 233, December 4, 2002, p. 72173 (4.50 KB [text file](#) or 35.5 KB [Adobe™ Acrobat™ file](#)).

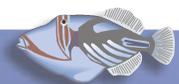


Final EPA Whole Effluent Toxicity Test Methods Issued

On November 19, 2002, the Environmental Protection Agency issued its final regulation concerning several test procedures for measuring toxicity of effluents and receiving waters. The test procedures are commonly referred to as whole effluent toxicity or WET test methods. The EPA also withdrew two WET test methods from the list of nationally-approved biological test procedures for the analysis of pollutants. This action also revised some of the WET test methods to improve performance and increase confidence in the reliability of the results. The rulemaking was promulgated to satisfy settlement agreement obligations designed to resolve litigation over an earlier rulemaking that originally approved WET test methods.

Method manual revisions promulgated in the final rule include:

- Minor corrections and clarifications;
- Incorporation of updated method precision data;
- Requirement for “blocking” by known parentage in the *Ceriodaphnia dubia* Survival and Reproduction Test;
- Specification of procedures to control pH drift that may occur during testing;
- Review procedures for the evaluation of concentration-response relationships;
- Clarification of limitations in the generation of confidence intervals;
- Clarification of requirements for measuring total residual chlorine in WET samples;
- Modification of the test termination criteria for the *Ceriodaphnia dubia* Survival and Reproduction Test to exclude the counting of fourth brood neonates;
- Guidance on dilution series selection;
- Clarification of requirements regarding acceptable dilution waters;
- Procedures for determining and minimizing the adverse impact of pathogens in the Fathead Minnow Survival and Growth Test; and





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- Requirement for the use of ethylenediaminetetraacetic acid (EDTA) in the *Selenastrum capricornutum* Growth Test.

The new rule also includes:

- A requirement to meet specific variability criteria when NPDES permits require sublethal WET testing endpoints expressed using hypothesis testing;
- Increases in the required minimum number of replicates for several tests;
- Clarification of required and recommended test conditions for the purposes of reviewing WET test data submitted under NPDES permits;
- Additional clarification of sample holding times;
- Clarification of requirements for reference toxicant testing and additional guidance on evaluating reference toxicant test results;
- Clarification of allowable sample holding temperatures;
- Clarification of biomass as the measured endpoint in survival and growth tests; and
- Clarification of requirements for measuring total residual chlorine in WET samples.

The EPA is ratifying the *Ceriodaphnia dubia* Acute Test; Fathead Minnow Acute Test; Sheepshead Minnow Acute Test; Inland Silverside Acute Test; *Ceriodaphnia dubia* Survival and Reproduction Test; Fathead Minnow Larval Survival and Growth Test; *Selenastrum capricornutum* Growth Test; Sheepshead Minnow Larval Survival and Growth Test; Inland Silverside Larval Survival and Growth Test; and *Mysidopsis bahia* Survival, Growth, and Fecundity Test. The EPA is withdrawing the *Holmesimysis costata* Acute Test and the *Champia parvula* Reproduction Test methods from 40 CFR part 136.

This regulation is effective December 19, 2002. The official docket (OW-2002-0024) for this action may be viewed at <http://www.epa.gov/edocket>.

Federal Register, Volume 67, Number 223, Tuesday, November 19, 2002, pp. 69951-69972 (155 KB [text file](#) or 181 KB [Adobe™ Acrobat™ file](#)).



EPA Method 1631: Measurement Of Mercury In Water Revised

On October 29, 2002, Environmental Protection Agency Method 1631, Revision E: Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Fluorescence Spectrometry (Method 1631E) for determination of mercury in aqueous samples was approved. The rule replaces the currently approved version of Method 1631 and includes revisions that address stakeholder concerns. EPA Method 1631E clarifies quality control and sample handling requirements and allows flexibility to incorporate additional available technologies. The rule also amends the requirements regarding preservation, storage, and





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holding time for low level mercury samples. Revision E incorporates several changes to increase method flexibility and improve data quality.

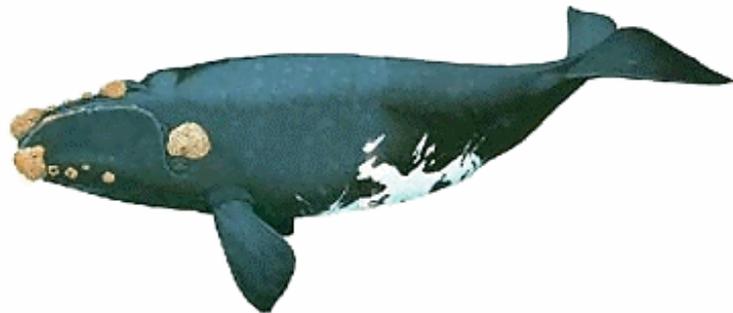
The rule amends 40 CFR 136.3(e) by adding a footnote to Table II to include requirements for collection, filtration, preservation, and maximum holding times that are specific to samples collected for determination of mercury using EPA Method 1631. This footnote includes the following requirements for mercury samples: samples must be collected in either fluoropolymer or glass containers; samples must be preserved with either HCl or BrCl within 48 hours of collection; time until preservation may be extended to 28 days if samples are oxidized in the sample bottles; samples have a maximum holding time of 90 days from the date of sample collection; and samples must be filtered in a clean area in the laboratory or in the field prior to sample preservation.

Federal Register, Volume. 67, Number 209, Tuesday, October 29, 2002, pp. 65876-65888 (87.4 KB [text file](#) or 94.9 KB [Adobe™ Acrobat™ file](#)).



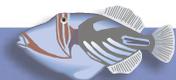
NMFS Reviewing Critical Habitat For Northern Right Whales

On July 11, 2002, the National Marine Fisheries Service received a petition from The Ocean Conservancy requesting that the NMFS revise and expand the current critical habitat designation for right whales. The petitioner requested that the NMFS expand the existing Southeast critical habitat designation to the following coordinates: 31° 30' N to 29° 40' N from the shoreline out to 30 nautical



miles (55.6 km²); 29° 4' N to 28° 00' N from the shoreline out to 10 nautical miles (18.5 km²). The petitioned area would add approximately 2,700 nm² (5,003.6 km²) to the current critical habitat coverage. The petitioner also requested that the NMFS expand and combine both the existing Northeast critical habitat designations (Cape Cod Bay and Great South Channel) into one critical habitat area bounded by the following coordinates: 41° 41.2' N/69° 58.2' W; 41° 00.0' N/69° 05.0' W; 41° 00.0' N/68° 13.0' W; 42° 12.0' N/68° 13.0' W; 42° 12.0' N/70° 30.0' W; 41° 46.8' N/70° 30.0' W; and on the southwest corner by the shoreline of Cape Cod, MA. The NMFS found that the petition presented substantial scientific information indicating that the requested action may be warranted. Within 1 year of the receipt of the petition, the NMFS will determine how it intends to proceed with the requested revision and publish notice of such intention in the Federal Register.

Comments on this action must be postmarked or transmitted by facsimile by January 21, 2003. For further information, contact Mary Colligan, Northeast Region, telephone: (978) 281-9116, facsimile:





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(978) 281-9394; Kathy Wang, Southeast Region, telephone: (727) 570-5312, facsimile: (727) 570-5517; or Patricia Lawson, telephone: (301) 713-2322, facsimile: (301) 713-0376.

Federal Register, Volume 67, Number 223, Tuesday, November 19, 2002, pp. 69708-69710 (11.1 KB [text file](#) or 40.9 KB [Adobe™ Acrobat™ file](#)).



FWS Proposes Critical Habitat For 3 Endangered Mariana Island Species

On October 15, 2002, the Fish and Wildlife Service proposed critical habitat for three endangered Mariana Island species – the Mariana fruit bat (*Pteropus mariannus mariannus*), Mariana crow (*Corvus kubaryi*), and Micronesian kingfisher (*Halcyon cinnamomina cinnamomina*). The proposed units include native limestone forest areas in northern and southern Guam for all three species, and one unit on Rota for the Mariana crow only. Approximately 24,800 acres in two critical habitat units are proposed on Guam and one unit totaling 6,084 acres on Rota. The Rota unit is only for the Mariana crow since the fruit bat is not a listed species in the Commonwealth of the Northern Mariana Islands and the Guam Micronesian kingfisher is native only to the island of Guam.

Under the terms of a court-approved settlement agreement, the FWS will publish a final critical habitat designation for the three species by June 3, 2003. On Guam, the proposed critical habitat includes 2,138 acres of private lands (9 percent of the total), 2,824 acres of Government of Guam lands (11 percent), and 19,840 acres of federal lands (80 percent). The federal lands are under the jurisdiction of the U.S. Air Force, U.S. Navy, and U.S. Fish and Wildlife Service. On Rota, the proposed critical habitat includes 503 acres of private lands (8 percent) and 5,581 acres of government land under the jurisdiction of the Commonwealth of the Northern Mariana Islands (92 percent). The majority of lands are within Andersen Air Force Base, the Naval Magazine, and the Guam National Wildlife Refuge. Because these are federal lands, the agencies would need to consult with the FWS if their activities could destroy or adversely modify critical habitat. In most cases, projects requiring consultation are allowed to go forward with minor modifications designed to minimize impacts to designated critical habitat.

Written public comments regarding the proposed rule should be sent to the Field Supervisor, Pacific Islands Fish and Wildlife Office, U.S. Fish and Wildlife Service, 300 Ala Moana Blvd., Room 3-122, Box 50088, Honolulu, HI 96850.

Federal Register, Volume 67, Number 1999, Tuesday, October 15, 2002, pp. 63737-63772 (189 KB [text file](#) or 492 KB [Adobe™ Acrobat™ file](#)).

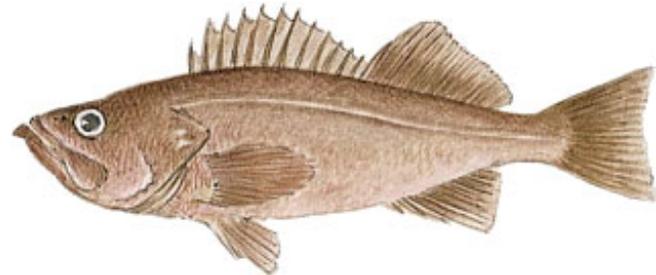




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Petition To List Southern Population Of Bocaccio As Threatened Denied

On January 30, 2001, the National Marine Fisheries Service received a petition from the Natural Resources Defense Council, Center for Biological Diversity, and Center for Marine Conservation (now known as The Ocean Conservancy) to list the central/southern distinct population segment (DPS) of bocaccio (*Sebastes paucispinis*) or, in the alternative, to list bocaccio throughout its entire range as



threatened under the Endangered Species Act (see *Marine Environmental Update Bulletin*, [June 14, 2001](#)). The petition also requested that the NMFS designate critical habitat for bocaccio. The petitioners contended that bocaccio have suffered precipitous population declines over the last several decades and that these population declines threaten bocaccio with extinction and compromise its ability to recover. The petitioners identified overutilization, specifically the direct and indirect harvest of bocaccio in groundfish fisheries, as the primary cause of bocaccio's decline. The petitioners identified other factors contributing to the status of bocaccio including inadequate regulatory mechanisms and habitat modification due to the effects of bottom trawling gear, pollution of nearshore juvenile habitat, and shifts in oceanographic conditions.

After reviewing the petition, the NMFS also reviewed stock assessments, fishery-independent and dependent data and other reports prepared prior to and from the time that bocaccio and other Pacific rockfish species came under Federal management, in addition to a comprehensive status review prepared by the NMFS Southwest Fisheries Science Center staff, the NMFS found that listing the southern population of bocaccio was not warranted at this time.

The bocaccio status review and accompanying stock assessment and rebuilding analysis are available electronically at <http://www.nmfs.noaa.gov/pr/species/fish/bocaccio.html>. For further information contact Cathy Campbell, NMFS, Southwest Region, Protected Resources Division, at (562) 980-4060 or David O'Brien, NMFS Office of Protected Resources, at (301) 713-1401.

Federal Register, Volume 67, Number 223, Tuesday, November 19, 2002, pp. 69704-69708 (32.1 KB [text file](#) or 54.0 KB [Adobe™ Acrobat™ file](#)).



Northern Populations Of Tidewater Goby To Remain On Endangered Species List

On November 7, 2002, the Fish and Wildlife Service withdrew the proposed rule, published in the Federal Register on June 24, 1999, to remove the northern populations of tidewater goby (*Eucyclogobius*





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newberryi) from the list of endangered and threatened wildlife and the concurrent proposal to keep listed as endangered a distinct population segment (DPS) of tidewater goby in Orange and San Diego Counties, CA.

The tidewater goby will remain listed throughout its entire range as an endangered species under the Endangered Species Act of 1973, as amended. This action is effective December 9, 2002.

Federal Register, Volume 67, Number 216, Thursday, November 7, 2002, pp. 67803-67818 (100 KB [text file](#) or 111 KB [Adobe™ Acrobat™ file](#)).



Assessment Of Coral Reef Ecosystems Of The United States

On September 27, 2002, the National Oceanic and Atmospheric Administration released the first-ever national assessment of the condition of U.S. coral reefs: *The State of Coral Reef Ecosystems of the United States and Pacific Freely Associated States*. The report identifies the pressures that pose increasing risks to reefs, particularly in certain “hot spots” located near population centers. The report also assesses the health of reef resources, ranks threats in 13 geographic areas, and details mitigation efforts. Led by NOAA’s Ocean Service, the 265-page report was developed by 38 coral reef experts and 79 expert contributors. Prepared under the auspices of the U.S. Coral Reef Task Force, the report establishes a baseline that will now be used for biennial reports on the health of U.S. coral reefs. Working with public and private partners in Puerto Rico and the U.S. Virgin Islands, coral ecosystems were successfully mapped around those islands using a novel 26-category classification system and mapping process.

Overall, Florida and the U.S. Caribbean were found to be in the poorest condition, mainly because of nearby dense populations and the effects of hurricanes, disease, overfishing and a proliferation of algae. The report also details coral reef conditions in the Flower Garden Banks of the northwestern Gulf of Mexico, Nassau, the Hawaiian Archipelago, American Samoa, Guam, the Commonwealth of the Northern Mariana islands and the Pacific Freely Associated States (Republic of the Marshall Islands, the Federated States of Micronesia and the Republic of Palau).

Data and other information derived from NOAA’s coral reef efforts are now available at CoRIS, a new Coral Reef Information System Web site that provides a single point of access for nearly 20,000 aerial photos, navigational charts, photo mosaics, monitoring reports, professional exchanges and much more. The report may be downloaded at: http://www.nccos.noaa.gov/documents/status_coralreef.pdf (15.9 MB Adobe™ Acrobat™ file).





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Second ONR Copper Workshop Report Released

Three years after the First Office of Naval Research (ONR) Copper Workshop (see *Marine Environmental Update*, [Vol. FY98, No. 3](#)), the issue of the chemistry, toxicity, and bioavailability of copper (Cu) in the marine environment and its relationship to regulatory standards was reassessed in the course of the second meeting of the Navy user community, government regulators, and scientists. The invited participants offered a series of arguments that presented particular expertise and experience on the issue of copper in an estuarine environment, be it that of a user, scientist, or regulator.

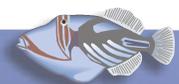
The original objectives of the second workshop were to:

1. Define Navy copper issues, problems, and requirements;
2. Define current status and future direction of Cu regulations;
3. Further the understanding of the relationship between copper speciation, bioavailability, and toxicity;
4. Determine the state-of-the-science of the Cu free ion activity and biotic ligand models; and
5. Develop a consensus on the maturity of free Cu ion activity and complexation capacity measurements capabilities.

Two trends arose from the workshop. The first is the continuing willingness and efforts made by naval facilities to limit the environmental impact of unavoidable copper discharges (*e.g.*, in-water hull cleaning), primarily through various technological improvements. The second is the willingness of regulatory agencies to work with the Navy to reach the common goal of reducing or eliminating copper discharges that are toxic to the environment.

Focus was put on the understanding of the natural mechanisms that serve to protect the environment as opposed to focusing on water quality standards that may be unattainable to safeguard estuarine water. Such processes include dilution, complexation, and sedimentation. These processes reduce copper toxicity by reducing overall copper concentration and by converting a portion of the concentration to a non-reactive or non-toxic state. This process occurs primarily via complexation and/or adsorption, either on the surface or internally. Not only does this process reduce toxicity, but it also aids in sedimentation (removal from the water column). As was pointed out in the First ONR Copper Workshop, the use of available copper in water quality criteria, rather than the total (dissolved) copper concentration is a scientifically-sound approach.

Zirino, A. and P.F. Seligman (eds.) *Copper, Chemistry, Toxicity, and Bioavailability and Its Relationship to Regulation in the Marine Environment*. SPAWASYSCEN Technical Document 3140, August 2002 (6.22 MB [Adobe™ Acrobat™ file](#)).





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48th Session Of The IMO Marine Environment Protection Committee

The 48th session of the International Maritime Organization (IMO) Marine Environment Protection Committee (MEPC) was held at IMO Headquarters in London on October 7-11, 2002. The meeting was attended by delegates from 86 IMO Member States, two United Nations Specialized Agencies, five inter-governmental organizations and 35 non-governmental organizations. Delegates discussed a range of topics relating to the protection of the marine environment from pollution by ships.

The main topics were:

- **Ship recycling**

Draft IMO Guidelines on ship recycling were discussed in detail, with a view to producing a final draft for adoption by the next IMO Assembly in 2003.

- **Ballast water management**

The Committee is to recommend to the IMO Council that a Diplomatic Conference be convened in early 2004 to adopt a draft convention on ballast water management.

- **Greenhouse gases**

The committee is developing a draft Assembly resolution on greenhouse gas emissions from ships.

- **Particularly Sensitive Sea Areas (PSSAs) and Special Areas (SAs)**

A Particularly Sensitive Sea Area (PSSA) is an area that needs special protection through action by IMO because of its significance for recognized ecological or socio-economic or scientific reasons and which may be vulnerable to damage by international maritime activities. The criteria for the identification of particularly sensitive sea areas and the criteria for the designation of special areas are not mutually exclusive. In many cases a Particularly Sensitive Sea Area may be identified within a Special Area and vice versa.

Annexes I, II and V, MARPOL 73/78, defines certain sea areas as “special areas” in which, for technical reasons relating to their oceanographic and ecological condition and to their sea traffic, the adoption of special mandatory methods for the prevention of sea pollution is required. Under the Convention, these special areas are provided with a higher level of protection than other areas of the sea.

Further information may be found at:

http://www.imo.org/Newsroom/mainframe.asp?topic_id=109&doc_id=2543.





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In-place Sediment Management Study Underway In Pearl Harbor

Extensive sampling was carried out at two sites in Pearl Harbor in the first week of 4-week field effort involving three universities, two Navy laboratories and industry. Led by the Space & Naval Warfare Systems Center, San Diego (SSC SD), the integrated study, entitled Pathway Ranking for In-place Sediment Management (PRISM), was funded by the Strategic Environmental Research and Development Program (SERDP), and seeks to examine the transport of contaminants in near-shore marine sediments via multiple physical, chemical and biological pathways. The ultimate goal is to provide field insight on how contaminants behave in near shore sediments, and how they can be cost-effectively but protectively managed. In the first week of the field effort, Sediment Profile Imaging (SPI) was carried out to evaluate the health of the sediment biological community and the structure and homogeneity of site sediments. Extensive coring was then carried out in order to evaluate the sediment, porewater and seawater chemistries. Instruments will be deployed at the sites to evaluate advective and diffusive flows, current velocities and sedimentation rates. Ultimately, these individual studies will be integrated so that these disparate processes can be evaluated in common terms in support of sediment management.



New Environmental Information On The WWW

National Environmental Methods Index (<http://www.nemi.gov/>)

On October 18, 2002, the U.S. Geological Service (USGS), announced a new standardized web-searchable database of environmental methods that will allow scientists and managers monitoring water quality to compare data collection methods at a glance and find the method that best meets their needs. The tool also allows monitoring data to be shared among different agencies and organizations that use different methods at different times. This database was developed in conjunction with the Environmental Protection Agency, and other partners in the federal, state, and private sectors. The National Environmental Methods Index (NEMI) is a free, web-based online clearinghouse of environmental monitoring methods. The NEMI database contains chemical, micro-biological and radiochemical method summaries of lab and field protocols for regulatory and non-regulatory water quality analyses. It is searchable, providing up-to-date methods information through a standard Internet connection and browser. Critical data on sensitivity, accuracy, precision, instrumentation, source and relative cost are produced as tabular reports, and full methods are linked to the summaries.

NEMI is a project of the Methods and Data Comparability Board (Methods Board), a partnership of water-quality experts from Federal agencies, States, Tribes, municipalities, industry, and private organizations who all share a commitment to developing water-quality monitoring approaches that facilitate collaboration and comparability among all data-gathering organizations. A second tool developed by the Methods Board is a common set of data elements for documenting the content and quality of monitoring data. These Water Quality Data Elements, also available on the Web, were also recently adopted by the Environmental Data Standards Council, an EPA, state, and tribal partnership, and the Environmental Commissioners of the States.





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EPA Enforcement And Compliance History Online (<http://www.epa.gov/echo/>)

The Enforcement and Compliance History Online website (ECHO) draws data from the Integrated Data for Enforcement Analysis system (IDEA) operated by the EPA's Office of Enforcement and Compliance Assurance. ECHO provides integrated compliance and enforcement information for approximately 800,000 regulated facilities nationwide. The site allows users to find inspection, violation, enforcement action, and penalty information about facilities for the past two years. Facilities regulated under the following environmental statutes are included: Clean Air Act (CAA) Stationary Source Program, Clean Water Act (CWA), National Pollutant Elimination Discharge System (NPDES), and Resource Conservation and Recovery Act (RCRA). ECHO reports provide a snapshot of a facility's environmental record, showing dates and types of violations, as well as the State or Federal government's response.

The EPA worked with State governments to develop the content of the site and to ensure accurate data. A joint EPA-State Enforcement and Compliance Public Access Workgroup developed the template for the type, sources, and amount of data to be included within ECHO. This workgroup, developed in partnership with The Environmental Council of the States (ECOS), made its recommendations in June 2000. ECHO also includes on the site an online error reporting process that allows users to alert the EPA and the States to possible errors.



The *Marine Environmental Update* is produced quarterly as an information service by the Marine Environmental Support Office (MESO) to inform the Navy environmental community about issues that may influence how the Navy conducts its operations. The contents of this document are the responsibility of the Marine Environmental Support Office and do not represent the views of the United States Navy. References to brand names and trademarks in this document are for information purposes only and do not constitute an endorsement by the United States Navy. All trademarks are the property of their respective holders. Approved for public release; distribution is unlimited.

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